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12. The Committee recommended the following proposals for supplementary demands :—

	RS.
(i) 8. FOREST—For the Russellkonda Saw-mill .. ..	40,000
(ii) 22. GENERAL ADMINISTRATION—On account of the increase of pay for the Assistant Secretary in the Law Department .. ..	1,095
(iii) 47. MISCELLANEOUS—On account of allowance to cholera parties on special duty during the visit of His Royal Highness the Prince of Wales .. ..	1,500

13. The item relating to the supplementary demand of 4.22 lakhs under "25. Jails and Convict Settlements" to meet increased charges chiefly on account of Mappilla prisoners was discussed at length. The Committee asked for further details and the item was postponed for consideration at the meeting to be held on Saturday the 11th November 1922.

FORT ST. GEORGE,  
1st November 1922.

C. G. TODHUNTER.

#### APPENDIX VIII.

[Vide page 527 supra.]

#### *Note on Survey Department.*

Madras is the only province in which revenue surveys have been made on professional lines if the period 1890—1900 be excepted. In other provinces the chief aim of revenue surveys was merely to determine the area of revenue holdings approximately. About the end of 1890 the question arose why surveys in Madras should not be made cheaper, and the Superintendent of Survey made a tour in other parts of India to examine the methods there. As a consequence, surveys on the lines followed in other provinces were commenced, and the initial survey of the districts of Malabar, South Kanara, portions of Anantapur and the resurvey of Trichinopoly were conducted on what was called the block map system. Later, the districts of Kistna, Gōdāvari, Salem and part of Guntūr were resurveyed under a modification of this system.

2. In these surveys accuracy was sacrificed to cheapness and they have been found useless for the purpose of revenue administration. These surveys cannot be maintained nor can they be restored. A fresh survey has been declared necessary

Accuracy in surveys  
sacrificed to cheap-  
ness

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and has been made in part of this area at *greater expense than would have been incurred had an accurate resurvey been made in the first instance and the framework of the initial survey been preserved.*

3. Thus the work of about a decade (1890—1900) has been a costly failure due to a pennywise policy.

A costly failure: From 1901 onwards better counsels have need for accuracy prevailed and the current systems of survey established. and resurvey are, it is believed, as efficient and economical as it is possible to make them.

Purpose of revenue surveys in Madras.

4. The following results are obtained :—

(1) A framework of theodolite survey which, with a little care, is permanent, and which, if not actively interfered with, can be restored at a small cost at intervals of, say, 30 years.

(2) The production of a village map showing boundaries of all survey fields plotted to scale, the most important topographical details and the area of the village.

Description and use of records prepared.

(3) A field measurement atlas containing a plan of each survey field with its subdivisions, on a scale sufficiently large to show all measurements and the area of the field and of its subdivisions.

(4) A register giving the name of the owner and occupier of each revenue field, the nature of the land, tenure, class of soil, source of irrigation and assessment.

In most districts granite stones have been fixed at bends on survey field boundaries; in a few taluks surveyed since 1919 stones were planted only at trijunctions of survey fields, and larger granite stones mark each theodolite survey point.

5. Such a survey is permanent. Even should a river burst its

An accurate survey is a permanent asset.

banks and sweep away houses, roads, and all land marks over a wide area, the survey could be reproduced correctly and all boundaries restored. It will suffice for the purposes of revenue administration for many years and can be brought up to date at any time for a trifling cost. A ryot can obtain

Benefits to land-holders.

a plan of his holding, however insignificant, showing all measurements and the area for from one anna to four annas. A buyer of land can thus ascertain its boundaries and area with certainty and obtain information to guard against encroachment by his neighbour. Land needed for acquisition proceedings can be cheaply and readily mapped and the



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existing maps altered. *But to obtain these benefits, an accurate survey is needed in the first instance.*

6. Let us now discuss briefly the revenue surveys of other Presidencies. *In not one of them is there a complete record of field measurements, and in some there is none at all.* The general practice is to fix points by the theodolite village boundaries. Ordinarily these are not permanent marks and the best are clay cylinders buried in the ground. A skeleton map is plotted, and with its guidance the surveyor

measures lines across the village and offsets to important bends on field boundaries, crying out the measurements to another surveyor who plots them, drawing in by the eye bends of fields not offsetted.

No record is kept of these measurements, and it is evident that the chance of mistakes is very large. No stone demarcation is made of field points. It is impossible to check the plotting of the map in office or to fix any field boundary accurately later on. In the Punjab the maps show the measurements of field boundaries, but no interior measurements to fix them, and in Bombay there is a field book containing a record of measurement, but not to scale. In the United Provinces, Bengal, Orissa and Bihar there is no record of field measurement at all. It is thus evident that in Madras the system of revenue survey is immeasurably better than elsewhere.

7. Unfortunately the methods of the surveys in Madras are not understood outside it, and the Government of India have from time to time asked for an inquiry whether such an accurate survey was necessary. The result has always been a reply in the affirmative. The two most recent inquiries were conducted, one by Lt.-Col. Crichton, C.I.E., Survey of India, in 1912 and another in 1914-15 by a committee consisting of a senior civilian from the Punjab, another from Madras and the Directors of Land Records and Survey. Lt.-Col. Crichton was at the time Director of Surveys, Bengal, and may naturally be supposed to have had a bias in favour of his own system. However, he declared the Madras system admirable and recommended its continuance. The committee that conducted the second inquiry were unanimous in reporting that the system followed in Madras was not too elaborate and advised no change, save a reduction in stone demarcation. Even this last recommendation was against the whole weight of the evidence of non-official witnesses.

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8. Although revenue surveys in Madras are so much more accurate, detailed and elaborate than those elsewhere, *their cost is in no way proportionate to their superiority over other revenue surveys.*

Surveys in Madras comparatively cheap.

Lt.-Col. Crichton gave the rate per square mile in 1912 for the revenue surveys of Bengal, *and it was found that those of Madras cost about one anna more per acre.*

9. A specimen of a village map from Bengal is enclosed and may be compared with the second enclosure, a village map of this Presidency. An extract from an atlas of field plans of Madras is also enclosed. None such is available in any other Presidency. Since Mr. Hatchell became Director, the Madras Survey Department has aimed at restoring the initial surveys of the Presidency in the light of modern methods and producing a survey, the framework of which will last for generations. The programme of surveys enclosed shows when this work will be completed. Thereafter, periodical resurveys will be required to keep the work up to date, owing to the frequency of change of ownership and subdivision of properties, but such surveys will cost little in comparison with those now in progress as the framework is being made so permanent. *In brief, the greater part of the Madras Presidency possesses a revenue survey immeasurably superior to those of other parts of India and costing very little more. It has been shown on page 585 above how costly was the experiment of cheap surveys conducted between 1890—1900.*

Specimens of village maps, Bengal and Madras, compared.

Aims of the Madras Survey Department.

#### REVENUE DEPARTMENT.

#### TENTATIVE LIST OF SUGGESTIONS FOR SURVEY AND SETTLEMENT RETRENCHMENT COMMITTEE.

##### PRESENT METHOD OF SURVEY.

Practically all surveys now being taken up by the regular survey parties are resurveys necessitated by the unsatisfactory nature of the surveys and resurveys made between 1890 and 1900.

2. The unit for survey is the revenue village. The first and essential preliminary operation is the demarcation of the boundaries of the village and of the khandams of from 150 to 200 acres in extent into which the village is divided. These boundaries are surveyed with theodolite and chain, the survey is connected and harmonized with the G.T. stations of the Survey of India, and



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traverse are set up and plotted to scale  $16'' = 1$  mile. The skeleton  
**A** | plots thus prepared are the frame work on which the village  
 map is built.

3. Next comes the demarcation of the holdings in the village khandam by khandam. In this process, existing boundaries are accepted as a rule, no attempt being made, except in cases of dispute, to relay boundaries of previous surveys as they may have shifted or been obliterated owing to changes in occupation, etc.

4. When work within a khandam is started, a sketch thereof is prepared showing all the holdings in it, and these are formed into compact groups—called survey fields—each containing about 10 acres in dry and 5 acres in wet. The included holdings (if more than one) in each survey field are mapped as subdivisions. The points in the sketch where three or more survey fields meet are noted as trijunction points and are demarcated with stones. Other points which, according to existing orders, are similarly permanently demarcated are—

- (1) theodolite stations ;
- (2) bends on poramboke survey fields and subdivisions and on the village boundaries ; and
- (3) ends of diagonal lines (see *infra*) not coincident with trijunction points.

When these trijunction points have been demarcated the lines forming the boundaries of survey fields and of subdivisions are measured. The survey is with the ordinary familiar chain and cross staff. Diagonal lines are also measured between trijunction points so as to form a net work of triangles over the khandam and the bend points on the boundaries offsetted. This provides a check on the correctness of the distances of the field and subdivision boundary lines, and between the trijunction points. Field maps are then plotted on the scale of  $40'' = 1$  mile, showing all measurements. Lines called *portal* lines are then measured between theodolite stations on khandam and village boundaries, and on these offsets are taken to trijunction points within 5 chains' distance. This provides a series of bases for plotting the survey fields in the skeleton of the village map referred to at **A** *supra*. The surveyor's work is inspected and revised if not found good.

5. While survey is in progress complaints of wrong demarcation which may be preferred under section 11 (2) of the Madras Survey and Boundaries Act IV of 1897, are inquired into and disposed of. Appeals against such orders may be preferred, under section 12 (1) (a) of the Act, to a higher officer against whose appellate decision an appeal may be made to a Civil Court if preferred within a year of

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the receipt of the order. The above is briefly the course of operations in the field. At the same time in the Trichinopoly district the surveyors prepare a book known as the land register.

In this they show, for each holding—

- (1) the survey and subdivision number assigned to it in the former survey ;
- (2) its survey number and subdivisions according to the existing survey ;
- (3) the class and sort of soil and whether wet or dry ;
- (4) the rate of assessment per acre ;
- (5) area ;
- (6) actual assessment ;
- (7) the name of the pattadar according to the existing revenue accounts.

The above entries (3) to (7) are filled in from the accounts with the karnam.

Next come spaces for an exactly similar set of entries to show the same particulars as they will be after the resurvey and resettlement are complete.

Of these spaces the surveyors fill up only that intended for the name of the pattadar, and the name they enter is that of the enjoyer as found by a very summary and casual questioning of any village officer or village servant or ryot or anybody who pretends to know anything about it.

On the completion of this stage of their work the survey send to the special staff the following records :—

- (i) A khandam location sketch showing the boundaries of holdings according to the limits existing on the ground.
- (ii) Field maps in which the measurements of the holdings as marked in the eye-sketches are shown.
- (iii) The rough land register referred to above.
- (iv) A rough area list showing the unchecked areas of the survey numbers and subdivisions as found by the field-surveyors.

*The special staff in the Trichinopoly district have two main functions—*

- (1) The revision of the revenue registry of holdings and the bringing of it up to date.
- (2) What is known as miscellaneous accounts inspection.

When revising the revenue registry, the special staff make use of the entry by the survey in the land register as to the name of the enjoyer of each holding. The correctness of this entry has to be verified. An enjoyer may be legally in possession and still be a



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lessee of a mortgagee and not entitled to the patta. The name may be entirely wrong. If the name of the enjoyer is correct but is found to be that of a different man from the man registered as pattadar in the latest revenue (karnam's) account, then the special staff has to examine his title, verify his sale-deeds or obtain the written consent of the registered pattadar or verify long enjoyment for over the statutory period or whatever may be necessary.

Under the heading miscellaneous accounts inspection are grouped many duties.

The special staff has to verify the correctness of the demarcation by the survey of the boundaries of all Government property (whatever department may be in actual charge of it).

If they find that Government land classed as poramboke and reserved is not required by Government, they transfer it to assessed waste and render it available for assignment to cultivating ryots. Where assessed waste lands have been cultivated without objection (on what is known as a sivoijama tenure) the special staff are empowered under a summary procedure to assign the lands on patta to the occupier. The special staff examine the boundaries of registered wet ayacuts. If any registered dry lands require to be transferred to wet, they attend to it and vice versa.

If ayacuts under different sources should touch one another, the boundary between them is checked and if any change of source is required it is made. If any tanks are found to exist for whose construction no proper authority is forthcoming, the circumstances are investigated and the matter is reported for orders. Inam lands are verified to see that the area of land exempt from Government assessment has not increased.

When the revenue on lands has been alienated on condition that they should be used for a specific purpose, it is examined whether the purpose is being fulfilled.

The correctness of any money-rate of assessment imposed by the Revenue Department has to be verified.

They also examine any discrepancies noticed in the survey records.

The inquiries and inspection necessary for the revision of registry and for the disposal of these miscellaneous items are all done together by the special staff.

When the special staff inspection is complete, the records are returned to the Survey with a list of cases (and the necessary sketches) in which alterations of the survey boundaries have been found necessary.

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## FURTHER WORK BY THE SURVEY DEPARTMENT.

These supplemental subdivisions or alterations are attended to, and the Survey department goes on with other *survey* processes to get the record of measurement out in its more or less final form.

Briefly, the fields are plotted in the skeleton of the village map, field areas computed from the map and from the field measurement books, the two sets of areas compared and recomputation done in cases of discrepancies. The area of the village by fields is thus found and compared with the area obtained from the theodolite traverses. The source of any difference is traced and the true area of fields and subdivisions entered in the atlas of field maps which are returned to the Special Staff office bound up together into the volumes which form the ordinary field-measurement book.

## SPECIAL STAFF.

With the return of the survey records with the supplemental subdivisions asked for during miscellaneous accounts inspection, duly measured up, the Special Staff office are able to correct the land register up to date embodying all changes of registry and all changes in miscellaneous matters that have been ordered by the special staff field party.

The correction of the land register being complete, the next thing is to collect up into single pattas all the lands owned by the different pattadars in the village. This is done and these pattas (rough pattas) are issued in the village. In the rough patta the ryots are told if they have any grievances connected with their pattas to attend at a certain place (to be named which will be either in the village or within five miles of it) on a certain date when a gazetted officer of the Settlement Party and the village officers will be present with the records to hear and dispose of all objections. On these occasions the procedure is summary and no adjournments are granted. On completion of the objection hearing, any necessary further inspection is done, any consequent supplemental subdivisions are measured and the land register is finally corrected.

The land register omitting certain entries referring only to the previous survey and settlement is fair-copied out to form the Karnam's Fair Adangal and the various fields held by each pattadar according to the adangal are collected up together to form a separate account for each pattadar. The volume in which this is written is the Fair Chitta, and the pattas finally issued to ryots by the Revenue department are only copies of the entries relating to individual pattadars as found in the Fair Chitta. The above represents the procedure followed in taluks where a resurvey is carried out and



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revenue registry is revised without any considerations of the closing of the period of a settlement and of alterations that may have to be made consequent upon Government orders varying the rates of assessment.

When fixing the amount of kist to be collected from a ryot, two things have to be known—

(a) the areas of his different fields, and

(b) the rate per acre of assessment that is to be levied upon the different fields.

The areas of the fields are fixed by the survey.

The rates of assessment per acre are liable to be altered owing to changes taking place on the ground which have no connexion with re-settlement.

Water-supply may improve and dry fields come under wet cultivation. A tank may be irreparably breached so that its ayacut can yield only dry crops.

Such changes are made by the special staff.

There remain changes in the rates of assessment owing to Government, so to speak making fresh terms in their contracts over land revenue with the ryots for the ensuing period of 30 years of the new Settlement.

The fixing of the new rates is the primary work of the Settlement staff.

The resurvey and the revision of registry and the miscellaneous accounts inspection are generally carried out just before a resettlement as a matter of convenience.

When one alters the amounts of assessment it is only a matter of justice that each ryot should be furnished with a statement showing the amount to be paid by him in future.

As it is particularly necessary, at the time of a resettlement in order to be able to give the ryots accurate information, it is at this time that is done the periodical overhauling or spring-cleaning of the revenue accounts caused by the inability of the Revenue department or Maintenance department to keep the accounts up to date.

#### SURVEY AGAIN.

On completion of the resettlement work a notice is sent to each pattadar by the Survey officer showing the survey and subdivision numbers registered in his name and their areas inviting the submission of any complaint he may have against survey within three months of the receipt of the notice.

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The difference between the surveys made in the Madras Presidency and those in other parts of India is, speaking generally, that in Madras any ryot can question the correctness of survey demarcation while it is in progress and for three months after he has received a notice stating exactly what is registered in his name. He can obtain a plan to scale of any of his holdings, for four annas, showing all measurements, and is thereby safeguarded against encroachment as any point can be relaid at any time. Outside the Madras Presidency the village map is generally the only map available. It is drawn in field, no record of measurements being kept, and boundaries of fields shown on it cannot be laid out correctly on the ground.

#### RESETTLEMENT WORK PROPER.

In order to fix dry rates, soils are divided up into main classes as follows :—

Black clay, black loam, red sand and red loam, etc.  
Then again each class is subdivided into sorts as  
best black clay,  
good black clay,  
ordinary black clay,  
poor black clay,  
worst black clay.

At the original settlements crop experiments were made on these sorts of soil to determine what outturn of a standard good grain that particular sort of soil would yield and also to determine the costs of cultivation that would be incurred in obtaining that outturn. The Government demand, it was laid down, should not exceed half the net outturn, i.e., half the price of the crop minus the cost of raising it.

Certain deductions were again allowed for unprofitable areas and so the standard rates for dry crops were arrived at. By standard rates are meant the rates in areas where communications are good and the cost of getting the crops to market is small.

In other areas communications are not so good, and in still others, villages may be extremely remote from markets and the cost of cartage to a market may be large.

To allow for this, the standard rates arrived at as above are imposed on villages where communications are good, and these villages are placed in the first group; villages where communications are inferior are placed in a second group in which rates somewhat less than the standard rates are levied. Still worse village are placed in a third group.

Thus dry rates are fixed.



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As regards wet rates again soils are divided out into classes and sorts as for dry lands.

But the yield of the crops is determined practically as much by the quality of the water-supply as by the quality of the soil.

Consequently sources are divided up into classes.

According to modern practice the number of these classes is five—

First class	sources are exceptionally good.
Second	yield a supply for eight months and over.
Third	for five months and less than eight months.
Fourth	for three months and less than five months.
Fifth	for less than three months.

Then again crop experiments have been made to determine the outturns and cultivation on soils of the various classes and sorts accordingly as they are served by irrigation sources of the first, second, third, fourth or fifth classes.

Again the Government demand is not to exceed half the net outturn.

At a resettlement normally no attempt is made to calculate grain outturns afresh.

One would not expect that soils had altered in their classes and sorts unless a new irrigation system or something had been altering the face of the country. Normally one's expectations would be justified, but unfortunately some old settlements were either done when settlement procedure was still in its infancy and very indefinite, or were done without the care that might have been expected. In some districts the soil classification requires a re-examination.

As regards the grouping of dry villages, the building of a railway, the making of new roads, and the opening of new markets may cause great changes in the cost of getting produce to market. The dry grouping requires examination.

As regards source classification, if sources were once classified correctly unless the water-supply was altered by some large improvement one would expect no change to be necessary.

Unfortunately, however, in the older settlements sources were assigned an average classification according to the area they happened to be in, i.e., in a fifth class source area every source from an anicut channel to a rain-fed tank half way up an hillside are termed fifth class sources.

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Consequently rates may bear very unequally, and rates for composition for a second crop may be in some cases absurdly low and in other cases impracticably high.

The source classification requires examination.

Then there comes the compilation of the various statistics and of the reports which have been prescribed in the Resettlement Manual from which one may judge whether the previous settlement has been a fair and equitable one, and whether it has tended to bear harshly on any particular tract.

By this time it will have been seen whether the frame work of the preceding settlement was sound and whether it is possible to fix the new rates for the coming settlement with reference to alterations in values alone or whether any alteration in the frame work is required first.

Once the soil and source classification and dry group is found to need no alteration or when any alterations required have been done, there remains only to fix the necessary alterations in the money rates.

For this are required particulars of the average prices of staple food-grains for the 20 non-famine years preceding the resettlement.

Alternately and preferably, where possible, when lands are leased out, and fetch their full economic rent, the net outturn from the land can be arrived at from the lease values.

For this purpose an examination of sale and lease deeds registered in Sub-Registrars' offices has to be made and statistics have to be compiled.

*Economic enquiry.*—In pursuance of a Legislative Council resolution in 1917, necessary instructions were issued to the Settlement Officers to examine the economic condition of a few families in a few villages of the area proposed to be settled. These enquiries are also made and the results reported.

With the materials obtained above, the Settlement Officer compiles a scheme report which is submitted for orders. On this report final orders as to any modification of the settlement frame work on which the rates are imposed are obtained, and final orders are passed as to the actual rates to be levied on each class and sort of soil according to its dry grouping or wet source classification.

Changes that may be necessary consequent on the above orders are made in the land register, rough pattas are issued, objections heard and fair accounts issued to the Revenue Department as described above.



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*Introduction report.*—On the conclusion of resettlement operations in a taluk, the Settlement Officer draws up and submits to the Board a report containing a brief account of the changes introduced at resettlement in the previously existing land revenue system and indicating clearly the financial and economic results of the resettlement.

#### QUESTIONS FOR CONSIDERATION OF THE COMMITTEE.

1. *What information should be maintained by Government as to holders of land and areas held by them?*—At present the basis of all the records kept by the Government in a village is the settlement register. This contains the following information :—

- (1) Survey number.
- (2) Subdivision letter.
- (3) Old survey number and letter, if any.
- (4) Government or inam.
- (5) Dry, wet, unassessed or poramboke.
- (6) Source of irrigation.
- (7) Single or double crop.
- (8) Class and sort of soil.
- (9) Taram.
- (10) Rate per acre.
- (11) Extent.
- (12) Assessment.
- (13) Remarks.

From this there is written year by year an account known as the adangal which contains the same information; but is or should be corrected from year to year in respect of the names of the holders of the various survey fields. The karnam is required to keep also an account showing how each field is cultivated in each month of the year; an account showing the lands which are cultivated but for which no patta is held by the ryots; an account showing the charges due for water other than those covered by the wet assessment; accounts showing other miscellaneous items of revenue. There is also a single village account which shows the fields contained in each patta held by each ryot. The settlement register on which these other accounts are based is prepared as shown by the note on the work of the special staff.

2. *Is it necessary to survey every revenue holding irrespective of the size or class of land (e.g., can limit be set)?*—At present every holding is not demarcated separately but holdings up to an extent of 5 acres in wet and 10 acres in dry are first clubbed and formed into a single survey field and surveyed and demarcated. In a survey

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field so formed each revenue field will form a subdivision if held by a separate individual. For practical purposes of account there is little difference between a survey field and a subdivision since each subdivision is separately shown in the settlement register and all the other accounts and all the details given in question 1 are maintained. But no stones are now placed for subdivisions. For the purpose of calculation of revenue it is not necessary to make all these subdivisions. If they were not made, the field would be shown in one joint patta under the names of all the persons holding portions of it. Under the Revenue Recovery Act each person whose name is shown in the patta would be a landholder and each one of them would be jointly and severally responsible for the payment of the land revenue due on the lands shown under the patta. In case of default it would be lawful for the Government to proceed against any one of these persons or against any portion of the land contained in the joint patta for the whole sum due. The advantage of the detailed survey is that each man has a separate patta for his separate portion of the survey field and is responsible only for the revenue on the portion which is his own private property.

3. *Should correct survey records be kept of every revenue holding?*—It has been pointed out in the course of inquiry by the Survey and Land Records Committee that the ryot who pays Government revenue demands in return a record of his holdings 'sufficiently minute to serve as an authoritative safeguard against encroachments by his neighbour'. The recommendation of the Committee was that a correct record of measurement should be maintained and the Government have accepted the recommendation. The records that are now maintained which are essential to ryots are (1) the field measurement book in which are given the correct record of measurement and the number of stones planted and (2) the village map. It is possible by means of these records to show the exact demarcation of each field in the village and to replace any stone which may have been missing or which may have been accidentally or unlawfully removed. Again, it is not necessary for the purpose of calculation of revenue that these accounts should be maintained. It would be sufficient for the Government to measure once for all the area to which each ryot is entitled and thereafter to collect the revenue from him, leaving him to protect his own boundary against encroachments by his neighbour or to get the exact line of demarcation laid down by a civil court in case it was not possible to determine it otherwise.

4. *To what extent should different holdings or different classes of land be demarcated?*—Previous to 1916 all bends of survey fields were demarcated. The Survey and Land Records Committee considered that so far as fields other than porambokes were concerned,



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it would be sufficient for administrative purposes to confine demarcation to field trijunctions and theodolite stations. Although most of the ryots examined by the Committee expressed a preference for the demarcation of bends of fields and bends of subdivisions, they were not prepared to meet the expense involved, and the Committee came to the conclusion that what the ryots required was only an authoritative record of measurement by means of which their boundaries could be shown them. The Board agreed with the view and also said that the ends of diagonal lines which do not coincide with field trijunctions or theodolite stations should also be demarcated. The Government accepted the recommendation.

It is a matter which the Committee may discuss how far it is necessary to place and maintain stones at all bends in the boundaries of patta fields. They serve the double purpose of showing the ryot where his property ends and where that of his neighbour begins and of facilitating the karnam's work of measuring up fresh subdivisions, etc., but it is a question partly of practical convenience and partly of expense to decide how many of such stones and at what points are necessary.

5. Should it be decided that some of the items of work now done in course of survey be eliminated, is it the opinion of the Conference that such work may be done if the ryot is willing to pay for it?

6. Can the process of survey or revision of adangals (or preparation of the survey records) be cheapened? And if so, can the members suggest any method?

7. Can the members suggest any method by which the process of resettlement of the assessment be cheapened?

*Report of the Conference assembled to consider the question of  
Retrenchment in Survey and Settlement Departments.*

A meeting of the Survey and Settlement Retrenchment Committee was held in the Committee Room of the Legislative Council at 12 noon on Friday, the 18th of August 1922, when the following members were present:—

1. The Hon'ble Sir MUHAMMAD HABIB-UL-LAH SAHIB, Kt.,  
C.I.E., *President.*
2. Mr. G. F. PADDISON, I.C.S.
3. Mr. A. Y. G. CAMPBELL, C.I.E., C.B.E., V.D., I.C.S.
4. Mr. G. W. PRIESTLEY, I.C.S.
5. Mr. F. V. P. GOMPERTZ.
6. M.R.Ry. Rao Sahib J. VENKATANARAYANA NAYUDU Garu.
7.       "       Diwan Bahadur M. RAMACHANDRA RAO PANTULU  
                  Garu.

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8. M.R.Ry. Diwan Bahadur M. KRISHNAN NAYAR Avargal.
9. „ Diwan Bahadur T. N. SIVAGNAM PILLAI Avargal.
10. „ Rao Bahadur T. BALAJI RAO NAYUDU Garu.
11. „ M. R. SETURATNAM AYYAR Avargal.
12. QADIR NAWAZ KHAN SAHIB Bahadur.

Mr. E. W. LEGH, I.C.S., Revenue Secretary, was also present.

M.R.Ry. Rao Bahadur T. A. RAMALINGA CHETTIYAR Avargal was unable, owing to illness, to take part in the conference.

Notes prepared by the department giving details of—

- (1) the process of survey,
- (2) the work of the special staff, and
- (3) the Settlement department,

had been issued to the members in advance. The conference accordingly opened with the discussion of these notes. The President raised the main issue by asking the question whether any system could be devised which would give the essential information required and be cheaper than the present system.

Attention was then directed to the Survey Department. Mr. Ramachandra Rao asked whether it was essential to resurvey the areas surveyed under block-map system between the years 1892 to 1896. The defects of the block-map survey were pointed out. There being no theodolite basis for the field maps, it is impossible to check or locate errors discovered in the office and consequently the only way of preparing a village map under that system is by fitting the various blocks together with a pair of scissors.

It was accordingly decided that it was essential to resurvey these areas and the conference agreed that this resurvey must go on. It was noted from looking up the programme that this resurvey should be completed between the years 1933 to 1935.

Mr. Ramachandra Rao then asked whether the whole strength of the five parties would be maintained to that date. It was pointed out that there were permanent hands for only three parties in the superior grade and for two parties in the inferior grade and that supposing one of the five parties were reduced this would only mean a transfer of the permanent hands to the remaining parties which would occupy longer time to complete the resurvey than that fixed in the programme referred to above. There was therefore no financial gain in considering the reduction of the permanent staff until the work was completed.

Mr. Ramachandra Rao suggested that before any fresh area which had been surveyed on the block-map system was taken up for resurvey it should be examined to see whether such resurvey



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was necessary both in the interest of the administration and of the ryot. This was agreed to.

The committee then turned to the questions on the printed paper with the view to giving definite answers to them.

*Question 1.*—What information should be maintained by Government as to holders of land and areas held by them?

Mr. M. R. Seturatnam Ayyar asked whether the printing of the settlement register was necessary in view of the fact that it took about five years to print the register and make it available for the public, by which time the entries would have become antiquated. He suggested that the quinquennial adangals might be maintained in the taluk office in its stead, and certified copies be granted to the parties concerned.

Mr. Paddison pointed out that while there were elaborate checks in the preparation of the settlement register, there would be none in respect of the adangals.

The President said that the course suggested would be tinkering with the results of a settlement arrived at after great trouble and expense.

It was not thought possible to dispense with any of the information at present maintained.

The conference expressed a desire to restore the name of the pattadar in the settlement register. It was pointed out that this had been omitted on grounds of economy. The conference considered this to be a bad economy and held that the retention of the name was of some use as it frequently facilitated the settlement of disputes in later years.

*Question 2.*—Is it necessary to survey every revenue holding irrespective of the size or class of land (e.g., can limit be set)?

The discussion centred round the question of the necessity for demarcating every revenue holding and every bend in the boundaries of such holding. After the details of the present system had been discussed at some length the committee expressed itself satisfied with the present arrangements.

Mr. Sivagnanam Pillai however raised the question whether there should be a limit of 50 cents for wet and 2 acres for dry below which no subdivision should be made. It was pointed out that this matter had been before the Government on previous occasions and that it required legislation. The President agreed to consider the matter.

Incidentally it was suggested by Mr. Ramachandra Rao that poramboke should be demarcated by fixed marks in cement or brick work. A rough calculation of the cost of such demarcation showed that on the ground of expense this would be impossible. It was calculated that the cost would be about Rs. 2-8-0 a stone

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and supposing there were 150 stones per village for 22,500 villages the cost would be 84 lakhs.

*Question 3.*—Should correct survey records be kept of every revenue holding?

A suggestion was made by Mr. Seturatnam Ayyar that khandam maps containing all the details now given in the field map would be cheaper than individual field maps. Mr. Gompertz pointed out that the maps would have to be of considerable size if the details were to be printed in them and would be rather unwieldy. He also pointed out that the field maps would have to be prepared in order to prepare khandam maps. There would therefore be no saving of expense. Finally it was pointed out that the field maps are not now printed and accordingly there was not any real saving to be made in this way. The committee thereupon resolved that the records now maintained should be continued.

*Question 4.*—To what extent should different holdings or different classes of land be demarcated?

The committee expressed itself in favour of demarcating the bends of survey fields if financial consideration would permit; but agreed that they were not prepared to recommend expenditure of money on additional demarcation and resolved that the present arrangement should continue.

*Question 5.*—Should it be decided that some of the items of work now done in the course of survey be eliminated, is it the opinion of the conference that such works may be done if the ryot is willing to pay for it?

The conference agreed that subdivision made at the request of ryots after survey or between surveys might be charged to the ryot provided that the cost of such subdivision was moderate.

*Question 6.*—Can the process of survey or revision of adangals (or preparation of the survey records) be cheapened? And if so, can the members suggest any method?

Mr. Ramachandra Rao inquired what provision was now made for the maintenance and upkeep of the records once prepared. Here, the President pointed out that this was the purpose for which the Land Records department had been instituted and that owing to the resolution of the Legislative Council they were now left only with the Revenue Inspector who had been employed for the purpose of land records, that several other provinces in India had Land Records Department for this special purpose; but that under the present conditions there was no agency left for the maintenance of land records other than the Revenue Department. The conference were unable to suggest any method for cheapening the processes of survey or revision of adangals.



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*Question 7.*—Can the members suggest any method by which the process of resettlement of the assessment be cheapened?

Mr. Balaji Rao Nayudu asked whether a special staff was necessary at the time of resettlement and this aspect of the case was fully discussed.

Mr. Balaji Rao Nayudu then expressed the opinion that the special staff was unnecessary. The President replied that no doubt at the first blush it appeared that the special staff was an unnecessary appendage to every settlement party. But whatever might be the condition of affairs in the future, at any rate in the past it was impossible to bring revenue registers up to date without the special staff. Now that they were going to secure correct records from the Survey Department and now that the resettlements were expected to bring all the revenue registers up to date, he was hoping to issue orders that in the future it should be recognized that a special staff would not, as a matter of course, be an appendage to every settlement party.

To the inquiry of Mr. Ramachandra Rao as regards other retrenchment proposals, the President replied that so far as the resettlements were concerned he summoned to his aid a special conference about the 14th May.

As a result, the compilation and publication of a large number of statements were done away with. The future Settlement officers would not collect all the minute details which their predecessors had been collecting. The conclusions of the conference were embodied in G.Os. No. 1173, dated 24th June 1922, No. 989, dated 1st June 1922, and No. 1181, dated 28th June 1922. These three Government Orders were issued as a result of the above conference. The President then asked the committee what other suggestions they offered for simplifying the course of resettlement, besides the statistical portions of the settlement reports.

Mr. Balaji Rao Nayudu then said that he did not see the necessity of such a large establishment and their going on with reclassification, etc. The President explained that they had already given up the reclassification of soils and water sources, the re-examination of yield from land, recalculation of cultivation expenses, etc. The Special Settlement Officer was now expected to scrutinize carefully the previous settlement operations with reference to the report in his hands. If, on inspection of the district, he was satisfied that the frame work of the original resettlement could be absolutely relied upon, he would not start inquiries as to whether the reclassification or other original work of the previous settlements were correct or not. An economic inquiry now loomed as a very large question. In pursuance of a

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resolution passed in the Legislative Council orders were issued to Settlement officers that it was very essential to find out in the first instance the economic condition of the district to be resettled.

Mr. Krishnan Nayar interposed saying that in connexion with the Resettlement Bill they considered various suggestions for conducting resettlements. Provided other things were there, it was merely a percentage enhancement and the application of a commutation rate.

The President continuing said that the prices of the previous 20 non-famine years were taken and a commutation rate arrived at and a percentage enhancement was fixed. In some places there would be circumstances justifying levelling up of inequitable assessments as in the Trichinopoly district. A Settlement officer would have to see how the previous settlement affected the people of a district and what the economic condition of the ryots was; whether the people had become richer or poorer, whether the lands had increased or decreased in value, whether particular sources had ceased to exist. He should also see whether any large irrigation works had been constructed and whether conditions had now changed. But under normal conditions the resettlement would be nothing more than a percentage enhancement. The President then explained the necessity for the special staff and the five parties now working out of which the permanent staff bore a small proportion, the rest being temporary added to or reduced to from time to time according to necessity.

Mr. Balaji Rao Nayudu then said that he simply wanted to know if there could be any reduction possible but after the explanation of the President he dropped the question.

Mr. Ramachandra Rao observed that he could not suggest any cheapening method unless they dispensed with the inquiries, and the President inquired whether the former would suggest the lessening of the economic inquiry to which he replied that on the other hand the question of indebtedness should be more thoroughly examined.

The President asked Mr. Priestley whether anything more was done to which the latter replied that an examination of lease values was also done. The President added that the Government rightly attach much importance to lease values.

The committee finally answered question 7 in the negative.

The committee regret that besides the suggestion made under question 5, they are unable to suggest economies in any other direction, nor the substitution of the present system by any other.